

Complement-fixation in Varicella.—KOLMER (*Jour. Immunol.*, 1, i, 51). The author points out that the object of this investigation was to determine whether antibodies could be detected in the blood serum of persons actively infected with varicella and after recovery by means of complement-fixation tests. The usual Wassermann reaction technic was employed in which antigens were used made from the extracts of contents of the vesicles and crusts of this disease. The net results of the study were that complement absorption does occur in the sera of varicella patients, but the reactions in most cases were slight, never outspoken. Negative reactions with all antigens used were observed in the sera of adult persons who had had varicella in childhood. In all such people the Wassermann reaction was negative in the absence of syphilis. Cowpox and variola antibodies did not absorb complement when mixed with varicella antigens, hence it can be shown that though antibodies are formed, the percentage of positive reactions, particularly when the degree of complement absorption is small. The author is of the opinion that a more delicate technic would probably yield a better percentage of positive reactions, but the danger there would be in the possibility of obtaining non-specific absorption of complement.

SURGERY

UNDER THE CHARGE OF

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Melano-epithelioma.—BRODERS and MACCARTY (*Surg., Gynec. and Obst.*, 1916, xxiii, 28) say, from a study of 70 cases from the Mayo Clinic, that the so-called "melanosarcoma" should be called properly a melano-epithelioma when such a condition arises in the skin. The condition arises as a migratory hyperplasia of the basal (regenerative or germinal) layer of the skin and invades the subcutaneous tissues and distant organs as pigmented and non-pigmented oval, spherical, or spindle cells, all of which cells are frequently found in the same specimen or even in the same microscopic slide. The evolution of such neoplasms in regenerative cells corresponds to the evolution of cancer in the skin, mammary gland, prostate gland, and stomach. The alveolar arrangement of cells in this series shows no evidence of any relation to vascular endothelium. The condition is one of middle life, although it may be found from childhood to old age. An attempt at determination of the exact duration of the condition from its onset to a fatal termination has failed in this series. There is no specific region of the skin which seems especially predisposed to the development of melano-epitheliomata unless it is on the lower extremities, which in

this series form the greatest frequency of location. Nevi certainly predispose to the development of the condition. Metastasis is usually to the regional lymphatic glands. From an economical or practical stand-point melano-epitheliomata which arise in the skin have a high mortality. Melano-epitheliomata or melanosarcomata arising in the eye have much better prognosis than melano-epitheliomata arising in the skin. From a therapeutic stand-point the pathological history of melano-epithelioma clearly points to the necessity of an early diagnosis and a radical removal of the primary lesion and regional lymph glands. From a prophylactic stand-point, pigmented areas of the skin, such as warts and nevi, should be removed when these are in locations which are or have been subjected to injury.

A Contribution to the Etiology of Cancer of the Esophagus and Stomach.—**LERCHE** (*Surg., Gynec. and Obst.*, 1916, xxiii, 42), from an extensive study of the literature, found that cancer of the esophagus and stomach is peculiarly prevalent in the temperate climate zone. The relative frequency with which cicatricial strictures from swallowed corrosive fluids occur in the various parts of the esophagus increases from above downward—in other words, the widest parts of the esophagus—are the most frequent sites of such strictures, and for physiological reasons. The distribution of cancer in the esophagus corresponds to that of the cicatricial strictures from swallowed corrosive fluids, and in all probability for the same physiological reasons. Any part of the esophagus and stomach may be the starting-point of cancer with the exception of the pyloric sphincter, which rarely seems to be the primary focus. The organ immediately beyond, namely, the duodenum, is practically immune from cancer. The reason for the two latter phenomena is probably that the ingests do not reach the pyloric sphincter until they are properly modified. In view of the foregoing conclusions, it seems logical to look to the ingesta of civilized man for the source of chronic irritation, which leads to malignant changes of the esophagus. The supposition that swallowed fluids after emanating from the cardia are directed along the “gastric gullet” to the prepyloric region is strongly supported by the fact that the cicatrices from smaller quantities of swallowed corrosive fluids are usually found along this path. Seventy-nine per cent. of cancer are found along this path—the cardia, the “gastric gullet,” and the prepyloric region. As cancer of the stomach follows the “highway of the fluids,” it seems logical to assume that ingested fluids in particular may be responsible. Alcohol and other irritating fluids probably play a part, but in the opinion of Lerche, “hot fluids” so universally taken throughout the temperate zone, in the form of coffee, tea, soups, etc., and giving rise to chronic irritation, is the main predisposing cause of cancer of the esophagus and stomach. Cancer of the esophagus occurs less often in women than in men, because women drink more slowly and take smaller swallows, which pass quickly through, thus saving the esophagus, while the less resisting mucosa of the stomach, where the fluids come to a stop, is more equally exposed in both sexes. The fact, therefore, that the ratio of cancer of the esophagus in men and women is 3.5 to 1, while cancer of the stomach occurs with almost equal frequency in both sexes, points strongly to “hot fluids” as the important predispos-